

CLAIMS

What is claimed is:

1. A preservative composition comprising an amphoteric compound and 3-iodo-2-propynyl butyl carbamate, wherein the amphoteric compound is a betaine.
2. The composition of claim 1, wherein the betaine is a carboxy betaine.
3. The composition of claim 1 or 2, wherein the ratio of betaine:3-iodo-2-propynyl butyl carbamate in the composition is about 0.5:1 to about 20:1 betaine:3-iodo-2-propynyl butyl carbamate by weight.
4. The composition of any one of claims 1-3, wherein the betaine is selected from the group consisting of coco amido propyl dimethyl betaine; cetyl betaine ((carboxylatomethyl)hexadecyldimethylammonium); and coco amido propyl dimethyl sultaine (cocoamidopropyl-N,N-dimethyl-N-2-hydroxypropyl sulfobetaine).
5. The composition of any one of claims 1-3, wherein the betaine is of the formula

$$\text{R-N}^+(\text{CH}_3)_2\text{-CH}_2\text{-COO}^-; \text{ or}$$

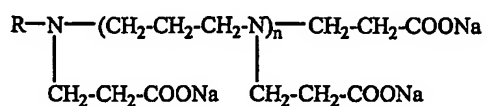
$$\text{R-C(=O)N}^+(\text{CH}_3)_2\text{-CH}_2\text{-COO}^-$$
 or a salt thereof;

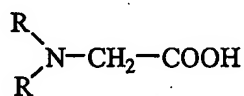
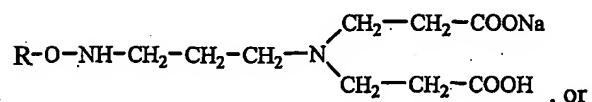
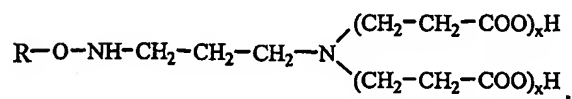
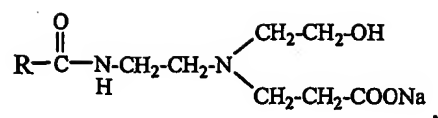
wherein R is a straight chain C₈₋₂₄ alkyl group, a straight chain C₁₀₋₁₈ alkyl group, or a C₁₂₋₁₆ alkyl group.
6. The composition of any one of claims 1-3, wherein the betaine is a cocamidopropyl-betaine of formula:

$$\text{RC(O)NH(CH}_2)_3\text{-N}^+(\text{CH}_3)_2\text{-CH}_2\text{-COO}^-;$$

wherein R is a C₉ to C₁₃ straight chain alkyl group.
7. A preservative composition comprising an amphoteric compound and 3-iodo-2-propynyl butyl carbamate, wherein the amphoteric compound is a weak nitrogen amphoteric.
8. The composition of claim 7, wherein the weak nitrogen amphoteric is an imidazoline amphoteric.

9. The composition of claim 7, wherein the ratio of weak nitrogen amphoteric compound to 3-iodo-2-propynyl butyl carbamate in the composition is about 0.5:1 to 20:1 by weight.
10. The composition of claim 7, wherein the weak nitrogen amphoteric is selected from the group consisting of
 - cocoamphodiacetate,
 - cocoamphoacetate,
 - cocoamphopropionate,
 - cocoamphodipropionate,
 - cocoamphohydroxypropylsulfonate,
 - cocoimidopropionate,
 - octoimidopropionate, and
 - capryloamphodipropionate
 or salt thereof.
11. The composition of claim 7, wherein the weak nitrogen amphoteric is selected from the group consisting of
 - cocoiminoglycinate,
 - cocoamphocarboxyglycinate, and
 - tallowamphopolycarboxyglycinate,
 or salt thereof.
12. The composition of claim 7, wherein the weak nitrogen amphoteric is selected from the group consisting of a
 - C₈ alkylamphopropionate,
 - C₁₂₋₁₈ alkylamphopropionate, and
 - C₁₂ alkyliminodipropionate,
 or salt thereof.
13. The composition of claim 7, wherein the weak nitrogen amphoteric is a compound of the formula:





wherein each R is independently a C₈₋₂₄ alkyl; each R' is H or a metal cation, each n is independently 0-5; and each x is independently 0-5.

14. The preservative composition of any one of claims 1-13, further comprising an additive.
15. The composition of claim 14, wherein the additive is a biocide.
16. The composition of claim 14, wherein the additive is propiconazole.
17. The composition of any one of claims 1-16 further comprising an antifoam agent.
18. The composition of claim any one of claims 1-17, wherein the composition is within a personal care product.
19. The composition of any one of claims 1-17, wherein the composition is within a household product or industrial product.
20. The composition of any one of claims 1-17, wherein the composition is a wood preservative.
21. The composition of any one of claims 1-17, having the property of providing stain resistance to wood.
22. The composition of claim 1, wherein the ratio of betaine:3-iodo-2-propynyl butyl carbamate (IPBC) is about 3:1 to 5:1; and wherein the

composition includes propiconazole, wherein the ratio of IPBC to propiconazole in the composition is about 4:1 to 1:1 by weight.

23. The composition of claim 22, wherein the ratio of betaine:IPBC is about 4:1 and the ratio of propiconazole:IPBC is about 1:1 by weight.
24. A method of preserving a material comprising applying the composition of any of claims 1-23 to the material, or combining the composition of any one of claims 1-23 with the material.
25. The method of claim 24, wherein the method comprising applying or combining an effective amount of the composition to inhibit the growth of microorganisms.
26. The method of claim 25, wherein the microorganism is a fungus or a bacteria.
27. The method of claim 24, wherein the material is a personal care product.
28. The method of claim 24, wherein the material is a household product or industrial material.
29. The method of claim 24, wherein the material is cellulosic.
30. The method of claim 24, wherein the material comprises wood.
31. The method of claim 30, wherein the method comprises applying the composition to the wood in an effective amount to improve the stain resistance of the wood.
32. A wood product comprising a wood treated with a preservative formulation of any one of claims 1-23.